

## EAST Search History

| Ref # | Hits | Search Query                           | DBs   | Default Operator | Plurals | Time Stamp          |
|-------|------|--|---|------------------|---------|---------------------|
| S1    | 2    | "20070121696"                          | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/09/07<br>09:26 |
| S2    | 0    | @ad<="20041104" and<br>(257/079).ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/09/07<br>09:27 |
| S3    | 1631 | @ad<="20041104" and<br>(257/79).ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/09/07<br>09:27 |
| S4    | 2379 | @ad<="20041104" and<br>(257/99).ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/09/07<br>09:29 |

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| S6  | 2535 | @ad<="20041104" and<br>(257/98).ccls.     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB           | OR | ON  | 2007/09/07<br>09:29 |
| S7  | 2    | "20040012958"                             | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB           | OR | ON  | 2007/09/07<br>09:31 |
| S8  | 2    | ("6898340").PN.                           | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/09/07<br>09:31 |
| S9  | 349  | @ad<="20041104" and<br>(362/241).ccls.    | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB           | OR | ON  | 2007/09/07<br>09:33 |
| S10 | 328  | @ad<="20041104" and<br>(257/E33.06).ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB           | OR | ON  | 2007/09/07<br>09:34 |

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| S11 | 700 | @ad<="20041104" and<br>(257/E33.065).ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>09:34 |
| S12 | 989 | @ad<="20041104" and<br>(257/E33.066).ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>09:35 |
| S13 | 760 | @ad<="20041104" and<br>(257/E33.068).ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>09:36 |
| S14 | 576 | @ad<="20041104" and<br>(257/E33.072).ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>09:36 |
| S15 | 287 | @ad<="20041104" and<br>(257/E33.074).ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>09:37 |

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| S16 | 603  | @ad<="20041104" and<br>(257/E33.075).ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>09:37 |
| S17 | 4427 | @ad<="20041104" and<br>(385/14).ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>09:50 |
| S18 | 6    | ("20030042505"  <br>"20030183835"  <br>"5900650"   "6426512"  <br>"6825499").PN. OR<br>("6898340").URPN.          | US-PGPUB;<br>USPAT; USOCR                               | OR | ON | 2007/09/07<br>09:52 |
| S19 | 29   | @ad<="20041104" and<br>"light emitting element"<br>and mount\$4 with<br>substrate with silicon with<br>single     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>10:00 |
| S20 | 12   | @ad<="20041104" and<br>"light emitting element"<br>and mount\$4 with<br>substrate with silicon with<br>reflect\$4 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>10:01 |

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| S21 | 65   | @ad<="20041104" and ("light emitting element" or "light emitting device") and mount\$4 with substrate with silicon with single | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>10:03 |
| S22 | 88   | @ad<="20041104" and single with silicon with mount\$4 and ("light emitting element" or "light emitting device")                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>10:04 |
| S23 | 69   | @ad<="20041104" and single with silicon with mount\$4 and ("light emitting element" or "light emitting device") and reflect\$4 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>10:04 |
| S24 | 1077 | @ad<="20041104" and single with silicon with substrate and ("light emitting element" or "light emitting device")               | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>10:12 |
| S25 | 245  | @ad<="20041104" and single with silicon with substrate same ("light emitting element" or "light emitting device")              | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>10:12 |

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| S26 | 100 | @ad<="20041104" and<br>single with silicon with<br>substrate same ("light<br>emitting element" or "light<br>emitting device") and<br>reflect\$4   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>10:13 |
| S27 | 917 | @ad<="20041104" and<br>(257/E31.117).ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>14:31 |
| S28 | 540 | @ad<="20041104" and<br>(257/E31.127).ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>14:31 |
| S29 | 23  | ("20010040245"  <br>"20020123164"  <br>"20030006418"  <br>"20040056260"  <br>"4918497"   "4966862"  <br>"5027168"   "5210051"  <br>"5338944"   "5393993"  <br>"5416342"   "5523589"  <br>"5604135"   "5631190"  <br>"5739554"   "5912477"  <br>"6084175"   "6120600"  <br>"6187606"   "6201262" | US-PGPUB;<br>USPAT; USOCR                               | OR | ON | 2007/09/07<br>15:02 |

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|     |     | "6214107"   "6885033"  <br>"6893892").PN. OR<br>("7202181").URPN.     |   |    |    |                     |
| S31 | 848 | @ad<="20041104" and<br>(257/98).ccls. and mount<br>\$4 and reflect\$4 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>15:13 |
| S32 | 2   | "jp 07007184"   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>15:18 |
| S33 | 471 | "WATANABE" and<br>"OMRON"   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>15:21 |
| S34 | 56  | "WATANABE" and<br>"OMRON" and "light<br>emitting"                     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>15:21 |

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| S35 | 171 | @ad<="20041104" and submount\$4 with substrate same ("light emitting element" or "light emitting device" or "LED") and reflect\$4           | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/07<br>15:42 |
| S37 | 53  | @ad<="20041104" and "mounting substrate" same ("light emitting element" or "light emitting device" or "LED") with reflect\$4                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>05:00 |
| S38 | 159 | @ad<="20041104" and mount\$4 with substrate with silicon same ("light emitting element" or "light emitting device" or "LED") and reflect\$4 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>05:07 |
| S39 | 141 | @ad<="20041104" and mount\$4 with substrate with silicon same reflect\$3 and ("light emitting element" or "light emitting device" or "LED") | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>05:07 |

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| S40 | 59 | @ad<="20041104" and "KUZUHARA" and "MATSUSHITA" and ("light emitting element" or "light emitting device" or "LED")       | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>05:42 |
| S41 | 87 | @ad<="20041104" and "mounting substrate" with reflect\$4 with surface  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>05:48 |
| S42 | 6  | ("20030042505"   "20030183835"   "5900650"   "6426512"   "6825499").PN. OR ("6898340").URPN.                             | US-PGPUB;<br>USPAT; USOCR                               | OR | ON | 2007/09/08<br>05:53 |
| S43 | 0  | "EP 0413489"   | US-PGPUB;<br>USPAT; USOCR                               | OR | ON | 2007/09/08<br>05:56 |
| S44 | 0  | "EP 413489"  | US-PGPUB;<br>USPAT; USOCR                               | OR | ON | 2007/09/08<br>05:56 |
| S45 | 0  | "EP 00413489"  | US-PGPUB;<br>USPAT; USOCR                               | OR | ON | 2007/09/08<br>05:56 |
| S46 | 17 | @ad<="20041104" and submount with single with silicon and ("light emitting element" or "light emitting device" or "LED") | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>05:57 |

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| S47 | 191 | "Ishii Yorishige" and SHARP  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>05:59 |
| S50 | 86  | @ad<="20041104" and packag\$4 same optical same silicon with substrate and reflector   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>06:07 |
| S56 | 561 | @ad<="20041104" and mount\$4 with substrate and receiv\$3 with ("light emitting element" or "light emitting device" or "LED") with reflect\$4              | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>06:17 |
| S57 | 34  | @ad<="20041104" and mount\$4 with substrate with silicon and receiv\$3 with ("light emitting element" or "light emitting device" or "LED") with reflect\$4 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>06:19 |

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| S58 | 5   | ("20020163001"  <br>"20020163006"  <br>"20030189830"  <br>"6501103").PN. OR<br>("6930332").URPN.   | US-PGPUB;<br>USPAT; USOCR                               | OR | ON | 2007/09/08<br>06:29 |
| S59 | 9   | ("20020130326"  <br>"20020195935"  <br>"20030006469"  <br>"20030008431"  <br>"20030038295"  <br>"5998925"   "6069440"  <br>"6252254"   "6734466").<br>PN. OR ("6909123").<br>URPN. | US-PGPUB;<br>USPAT; USOCR                               | OR | ON | 2007/09/08<br>06:31 |
| S60 | 545 | @ad<="20041104" and<br>(257/98).ccls. and silicon<br>with substrate  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>06:46 |
| S61 | 621 | @ad<="20041104" and<br>(257/98).ccls. and reflector  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>06:48 |

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| S62 | 77 | ("20020123164"  <br>"20030006418"  <br>"20030032212"  <br>"20030067264"  <br>"20030080341"  <br>"20030098459"  <br>"20030153861"  <br>"20030173575"  <br>"20040041222"  <br>"20040041757"  <br>"20040056260"  <br>"20040079957"  <br>"20040095738"  <br>"20040211970"  <br>"20040222433"  <br>"4042552"   "4107238"  <br>"4141941"   "4562018"  <br>"4650922"   "4794048"  <br>"4826424"   "4918497"  <br>"4935665"   "4966862"  <br>"5024966"   "5027168"  <br>"5087949"   "5110278"  <br>"5143660"   "5210051"  <br>"5277840"   "5298768"  <br>"5338944"   "5374668"  <br>"5393993"   "5416342"  <br>"5523589"   "5604135"  <br>"5631190"   "5739554"  <br>"5753730"   "5813753" | US-PGPUB;<br>USPAT; USOCR | OR | ON | 2007/09/08<br>06:50 |
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|     |    | "5851063"   "5858278"  <br>"5882553"   "5912477"  <br>"5959316"   "5968422"  <br>"6060729"   "6066861"  <br>"6069440"   "6120600"  <br>"6156242"   "6177688"  <br>"6184544"   "6187606"  <br>"6201262"   "6219223"  <br>"6252254"   "6329676"  <br>"6373188"   "6383417"  <br>"6391231"   "6404125"  <br>"6480389"   "6498355"  <br>"6531328"   "6562643"  <br>"6599768"   "6639356"  <br>"6686609"   "6707069"  <br>"6744077"   "6783362"  <br>"6791151"   "6824294").<br>PN. OR ("7183587").<br>URPN. |   |    |    |                     |
| S63 | 48 | @ad<="20041104" and<br>("light emitting element" or<br>"light emitting device" or<br>"LED") same reflector with<br>(dielectric or insulat\$4)<br>with metal   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>08:36 |

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| S64 | 10  | @ad<="20041104" and ("light emitting element" or "light emitting device" or "LED") same reflector with (dielectric or insulat\$4) with "reflective metal" | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB           | OR | ON  | 2007/09/08<br>08:36 |
| S65 | 46  | @ad<="20041104" and reflector with (dielectric or insulat\$4) with "reflective metal"   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB           | OR | ON  | 2007/09/08<br>08:45 |
| S66 | 2   | ("5169229").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/09/08<br>08:49 |
| S67 | 12  | ("4322130"   "5007710").PN. OR ("5169229").URPN.  | US-PGPUB;<br>USPAT; USOCR   | OR | ON  | 2007/09/08<br>08:51 |
| S68 | 711 | @ad<="20041104" and reflect\$4 with (dielectric or insulat\$4) with "reflective metal"  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB           | OR | ON  | 2007/09/08<br>14:05 |

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| S69 | 64 | @ad<="20041104" and<br>reflector same (dielectric<br>or insulat\$4) with<br>"reflective metal" | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/09/08<br>14:06 |
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**9/8/07 5:04:40 PM**

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Solder Ball, Bonding Pad, Testing\10579008 packaging submount LED 257.wsp**